

CLAIMS

1. Device for the hydraulic control of an automatic transmission, especially a continuously variable automatic transmission, comprising a forward/reverse drive unit (4), which is shifted by means of at least one first and one second shifting component (5, 6), wherein the shifting components (5, 6) are pressurized by means of at least two valves (7, 8, 17, 18, 20, 21) via a pressurized medium pump (9), and comprising a gear selector device (15), with which selection may be made among at least one forward gear (D), one neutral gear (N), and one reverse gear (R), and which is mechanically connected to a control unit (14), characterized in that the control unit (14) has a non-mechanical connection (32) for actuation of the valves (7, 8, 17, 18, 20, 21) for the purpose of selecting the gears.

2. Device pursuant to claim one, characterized in that the first valve (7) that is pressurized with system pressure is controlled via a first pressure regulator valve (10), and adjusts the pressure with which the shifting components (5, 6) will be pressurized, and at least one valve (8, 17, 18), which selects which shifting component (5, 6) will be pressurized with the output pressure of the first valve (7).

3. Device pursuant to claim two, characterized in that the second valve (8), which is controlled via a first solenoid valve (11), has two stages and selects whether a first shifting component (5), which advantageously represents a brake that is pressurized in the reverse gear (R), or a second shifting component (6), which advantageously represents a clutch that is pressurized in a forward gear (D), will be pressurized with the output pressure of the valve (7).

4. Device pursuant to claim two, characterized in that the second valve (8) has three stages and is controlled via a second pressure regulator valve (33), and selects whether a first shifting component (5), which advantageously represents a brake that is pressurized in a reverse gear (R), or a second shifting component (6), which advantageously represents a clutch that is pressurized in a forward gear (D), or both shifting components (5, 6) will be evacuated.

5. Device pursuant to claim two, characterized in that it comprises a third and fourth valve (17, 18), which are used to select whether the shifting

component (5, 6) that is connected in sequence in each case will be pressurized with the output pressure of the first valve (7), wherein a brake is advantageously pressurized via the third valve (17) and a clutch is advantageously pressurized via the fourth valve (18), and furthermore the fourth valve (18) is controlled via a third pressure regulator valve (19).

6. Device pursuant to claim five, characterized in that the third pressure regulator valve (19), which controls the fourth valve (18), also controls another consumer (1), and in that the third and fourth valves (17, 18) are controlled via the first solenoid valve (11).

7. Device pursuant to claim two, characterized in that it comprises a third and a fourth valve (17, 18), which are used to select whether the shifting component (5, 6) that is connected in sequence to it in each case will be pressurized with the output pressure of the first valve (7), wherein a brake is advantageously pressurized via the third valve (17) and a clutch is advantageously pressurized via the fourth valve (18), and the third and fourth valves (17, 18) are controlled via second and third pressure regulators (33, 19), and the first pressure regulator valve (10) controls a further consumer (3).

8. Device pursuant to claim 7, characterized in that the additional consumer (3) is a hydraulic start-up element.

9. Device pursuant to claim one, characterized in that the pump (9) forces pressurized medium directly onto at least a third and a fourth valve (20, 21), which are controlled via a first, fourth or fifth pressure regulator valve (10, 22, 24), and pressurize two shifting components (5, 6) of the forward/reverse drive system (4).

10. Device pursuant to claim 9, characterized in that the first shifting component (6) advantageously corresponds to a brake, which is pressurized in a reverse gear (R), and the second shifting component (6) advantageously corresponds to a clutch, which is pressurized in a forward gear (D).

11. Device pursuant to claim 10, characterized in that the third valve (20) is controlled via a fifth pressure regulator valve (24) only when the reverse gear (R) is selected, wherein when the fifth pressure regulator valve (24) controls another consumer (3) when a different gear is selected, with this consumer advantageously

representing the pressurization of a hydraulic start-up element, and the selection of which consumers (2, 3) the fifth pressure regulator valve (24) triggers, is controlled via a seventh valve (25).

12. Device pursuant to claim 10, characterized in that an eighth valve (26) is provided, which is arranged between the third and fourth valves (20, 21) and the shifting components (5, 6) and which determines whether either one of the two shifting components (5, 6) will be pressurized or both shifting components (5, 6) will be evacuated, wherein the eighth valve (26) is controlled via a sixth pressure regulator valve (27).

13 . Device pursuant to claim 12, characterized in that the sixth pressure regulator valve (27) controls an additional consumer (1).

14. Device pursuant to claim 13, characterized in that the additional consumer (1) corresponds to a V-pulley of a variable speed gear.

15. Device pursuant to claim 14, characterized in that between the third and fourth valves (20, 21) and the shifting components (5, 6) connected in series, in each case an additional ninth and tenth valve (28, 29) is arranged, wherein the ninth and tenth valves (27, 28) are controlled via a second solenoid valve (23) and the tenth valve (29) is additionally controlled via a sixth pressure regulator valve (30), which also triggers a further consumer (1).

16. Device pursuant to claim 15, characterized in that the additional consumer (1) corresponds to a V-pulley of a variable speed gear.